EXTENDED
SWL 1945 KG
RETRACTED
SWL 455T KG
CARBON DIOXIDE FREE APPARATUS
BELL SHIMADA

GENERAL NOTES

1. EQUIPMENT & FURNITURE LOCATIONS SHOWN ARE FOR INFORMATION ONLY.
2. SEE REFRENCED LAYOUTS & ARRANGEMENTS FOR DEFINITIVE EQUIPMENT AND FURNITURE LOCATION AND SIZES.
3. FOR DETAILS OF LAB ARRANGMENTS, SEE REF. 8.
4. FOR AFT EXTERIOR ARRANGEMENTS, SEE REF. 7
5. ABBREVIATIONS ARE IN ACCORDANCE WITH MIL-STD 12D
   EXCEPT AS FOLLOWS:
   P/S=PORT AND STARBOARD
   FWTH=FLUSH WATERTIGHT HATCH
   EOS=ENGINEER'S OPERATING STATION
   MMR=MAIN MACHINERY ROOM
   BERP=BOLTED EQUIPMENT REMOVAL PLATE
   WERP=WELDED EQUIPMENT REMOVAL PLATE
   SWTD=SLIDING WATER TIGHT DOOR
   C/B=CENTERBOARD
   RWTH=RAISED WATER TIGHT HATCH
   IMU=INERTIAL MEASUREMENT UNIT
   FWTS=FLUSH WATER TIGHT SCUTTLE
6. FRAME SPACING THROUGHOUT IS 600MM.
7. BULKHEADS ARE TO BE IDENTIFIED AS FOLLOWS:
   STEEL/ALUMINIUM BHD = ————————
   STEEL/ALUMINUM BHD = ═══(W/JOINER LINING)
   JOINER BHD = ═══
   EXPANDED METAL BHD = —×—×—×—
   NON-TIGHT STEEL/ALUMINUM BHD = ═══
8. SUPERSTRUCTURE ABOVE THE 01 LEVEL SHALL BE OF ALUMINIUM CONSTRUCTION.
9. 01 LEVEL FORWARD OF FRAME 19 SHALL HAVE 12mm PER FRAME STRAIGHT LINE SHEER.
10. THE ENTIRE 04 LEVEL SHALL HAVE 6mm PER FRAME STRAIGHT LINE SHEER.

AS-BUILT
△8
△6

NO.	TITLE	DRAWING NUMBER
	REFERENCES	
13	AWNING LAYOUT	FH59
12	MAST, RIGGING & FLAGSTAFF LAYOUT & DETAILS	FH22
11	HANDRAILS, LIFERAILS & LIFELINES-KEY PLAN & DET	FH88
10	INCLINED & VERTICAL LADDERS KEY PLAN & DET	FA11
9	FOOD SERVICE ARRANGEMENT	FZ03
8	BRIDGE DECK ARRANGEMENT	PE42
7	ENGINEER'S OPERATING STATION LAYOUT	FE47
6	JOINER ARRANGEMENT	FA27
5	WORKSHOPS LAYOUTS	FA26
4	LAUNDRY LAYOUT	FA23
3	LABORATORY LAYOUTS	FA22
2	MISSION EQPT, LAYOUTS AND RIGGING ARRGT	FA17
1	MAIN MACHINERY ROOM ARRANGEMENT	FA03

REVISIONS

REV	ZONE	DESCRIPTION	DATE	APPROVED
6		1. SH 2, TANK TOP, UPDATED DOOR SWING TO MATCH AS-BUILT CONDITION. 2. SH 3 & 3A, MAIN DECK, ADDED STBD CRANE REST FDN. 3. SH 3, MAIN DECK AND 2ND DECK, UPDATED DOOR SWINGS AND LCOATIONS TO MATCH AS-BUILT CONDITIONS. 4. SH 3A, MAIN DECK, UPDATED DOOR SWINGS AND LCOATIONS TO MATCH AS-BUILT CONDITIONS. 5. SH 4, 01 LEVEL & 02 LEVEL, UPDATED DOOR SWINGS AND LOCATIONS TO MATCH AS-BUILT CONDITIONS. 6. SH 4, 01 LEVEL, ADDED ARCHWAY TO MATCH AS-BUILT CONDITION. 7. SH 4, 01 LEVEL, UPDATED LIFERAFT LAYOUT TO MATCH AS-BUILT CONDITION. 8. SH 1, THIS REVISION REFLECTS AS-BUILT CONDITIONS FOR HULL 1953. ITEM 1 THRU 8 PER WALK THRU & ENGINEERING DEVELOPMENT	8/9/06 MDP	

REVISIONS

REV	ZONE	DESCRIPTION	DATE	APPROVED
1		1. SH 3, 2ND DK: REVISED TO AGREE WITH DWG FH79 OCEANOGRAPHIC WINCH AND FDN LAYOUT & DETAILS; DWG FH43 MISC. FDN BOOKLET; DWG FH05 HULL TRANSOM SCANTLINGS, FR 91-TRANSOM; DWG FA11 INCLINED & VERTICAL LADDER-KEY PLAN & DETAILS; DWG FH88 HANDRAILS, LIFERAILS & LIFELINES-KEY PLAN & DETAILS. 2. SH 4, 01 LEVEL: REVISED CONFIGURATION OF LIFERAFTS & LIFERAFT DAVIT TO AGREE WITH DWG FH82 LIFESAVING EQUIPMENT FOUNDATIONS. 02 LEVEL: RELOCATED INCLINED LADDER FROM AFT BHD OF EMERGENCY GENERATOR RM TO STBD BHD OF SAME SPACE TO AGREE WITH DWG FA11 INCLINED & VERTICAL LADDER-KEY PLAN & DETAILS. ITEM 1 PER REWORK #741-004 & ENG. DEVELOPMENT ITEM 2 PER REWORK #741-007 & ENG. DEVELOPMENT	1/23/04 WH	1/23/04 RG
2		1. SH 3, MN DK: REVISED GALLOWS LAYOUT TO SUIT NEW DESIGN. REVISED TRAWL RAMP COVER. DELETED NET SONDE WINCH FROM GALLOWS PLATFORM. 2. SH 3, MN DK: REVISED BITT LOCATIONS TO SUIT NEW GALLOWS LAYOUT. 3. SH 4, 01 LEVEL: REVISED GALLOWS LAYOUT. 02 LEVEL: INCORPORATED NET SONDE WINCH TO NEW LOCATION AT FR 61. 4. SH 4, 01 LEVEL: REVISED HANDRAILS IWO SIDE 'A' FRAME. ADDED GOOSENECK AT FR 82 AND REVISED HANDRAILS TO SUIT. 5. SH 2, TANKTOP: DELETED SINK IN ENGINEER'S WORKSHOP. 6. SH 2, TANKTOP: REVISED OCEANOGRAPHIC WINCH LAYOUT. 7. SH 3, MN DECK: REVISED VARIOUS DOOR SWINGS AND LOCATIONS IN LABS. 8. SH 4, 01 LEVEL: REVISED AFT CRANES AND BOOM RESTS. 9. SH 5, 03 LEVEL: UPDATED PILOTHOUSE ARRANGEMENTS. ITEMS 1, 2 & 3 PER ECP 0083. ITEMS 4, 5, 8 & 9 PER ENG. DEVELOPMENT. ITEM 6 PER RE-WORK #741-0004. ITEM 7 PER OWNER'S REQUEST.	1/4/05 RMW	1/28/05 RG
3		1. EXTENDED HULL APPLICABILITY TO INCLUDE HULL 1956. ITEM 1 PER ENGINEERING DEVELOPMENT.	3/18/05 RMW	3/21/05 FH
4		1. SH 4, 01 LEVEL: LENGTHENED SIDE A-FRAME CROSS BEAM AND RELOCATED FORWARD SIDE A-FRAME BASE FROM FRAME 45 TO 41 1/2 TO SUIT; RELOCATED SIDE SAMPLING STATION CONTROL BOOTH AFT OF RELOCATED BASE. 2. SH 4, 02 LEVEL: REVISED JOINER BULKHEAD LAYOUT BETWEEN STATEROOMS 02-38-2 AND 02-46-2. ITEM 1 PER ECP 0090. ITEM 2 PER OWNER COMMENTS	6/27/05 AGE	7/1/05 FH
5		1. SH 1, ADDED SH 3A TO REVISION STATUS. 2. SH 3, ADDED M282 & M284 APPLICABILITY TO CALLOUT FOR MAIN DECK LAYOUT. 3. SH 3A, ADDED MAIN DECK LAYOUT FOR M283. 4. EXTENDED HULL APPLICABILITY TO INCLUDE HULL 1957. ITEM 2 PER ECP 0056B.	5/1/06 MDP	5/10/06 SM

CONT'D IN 4-D

DWG NO. M282-085-FA02 SH 1

DOCUMENT DISTRIBUTION RECORD

DATE IN ROOM	9/4/03	1/23/04	1/28/05	3/21/05	6/30/05	5/1/06	8/9/06							
ISSUE DATE	9/8/03	1/27/04	2/1/05	3/22/05	7/1/05	5/10/06								
REV#	0	1	2	3	4	5	6							
PROJECT ENG	1	1	1	1	1	1								
PROJECT MGR	1	1	1	1	1	1								
ABS	10													
USPH														
USCG	7													
HMP PC	12	12	12	12	12	12	1							
PROD DESIGN GROUP	1(3)	1(3)												
HULL MGR														
HULL LEAD	(1)	(1)	(1)	(1)	(1)	(1)	1							
HVAC	1	1	1	1	1	1	1							
JOINER	1	1	1	1										
HPG PC	3	3	3	3	1(1)	1(1)	1							
NOISE CONT														
CHAND LLC	1	1	1	1										
ISSUED BY	AE	AE	AE	AE	AE	SM								

HULL APPLICABILITY

△4 △1
▽5 ▽3

M282 HULL 1953
M283 HULL 1956
M284 HULL 1957

△1
▽5

10	9	8	7	6	5	4	3A	3	2	1	SHT
							3	6	6	6	REV

REVISION STATUS

DRL NUMBERS

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VT Halter Marine, Inc.
Vision Technologies Systems

DRAWN BY	WH 7/7/03	ABS APPV	
CHECKED BY	RW 7/29/03	USCG APPV	
APPROVED BY	JO 9/04/03	OWNER APPV	
HULL NO	APPLICABILITY	CAGE CODE	3B213
SIZE	D		
ESTIMATE NO	00-104	SCALE	NONE

VESSEL
FRV40 CLASS 63m FISHERIES RESEARCH VESSEL

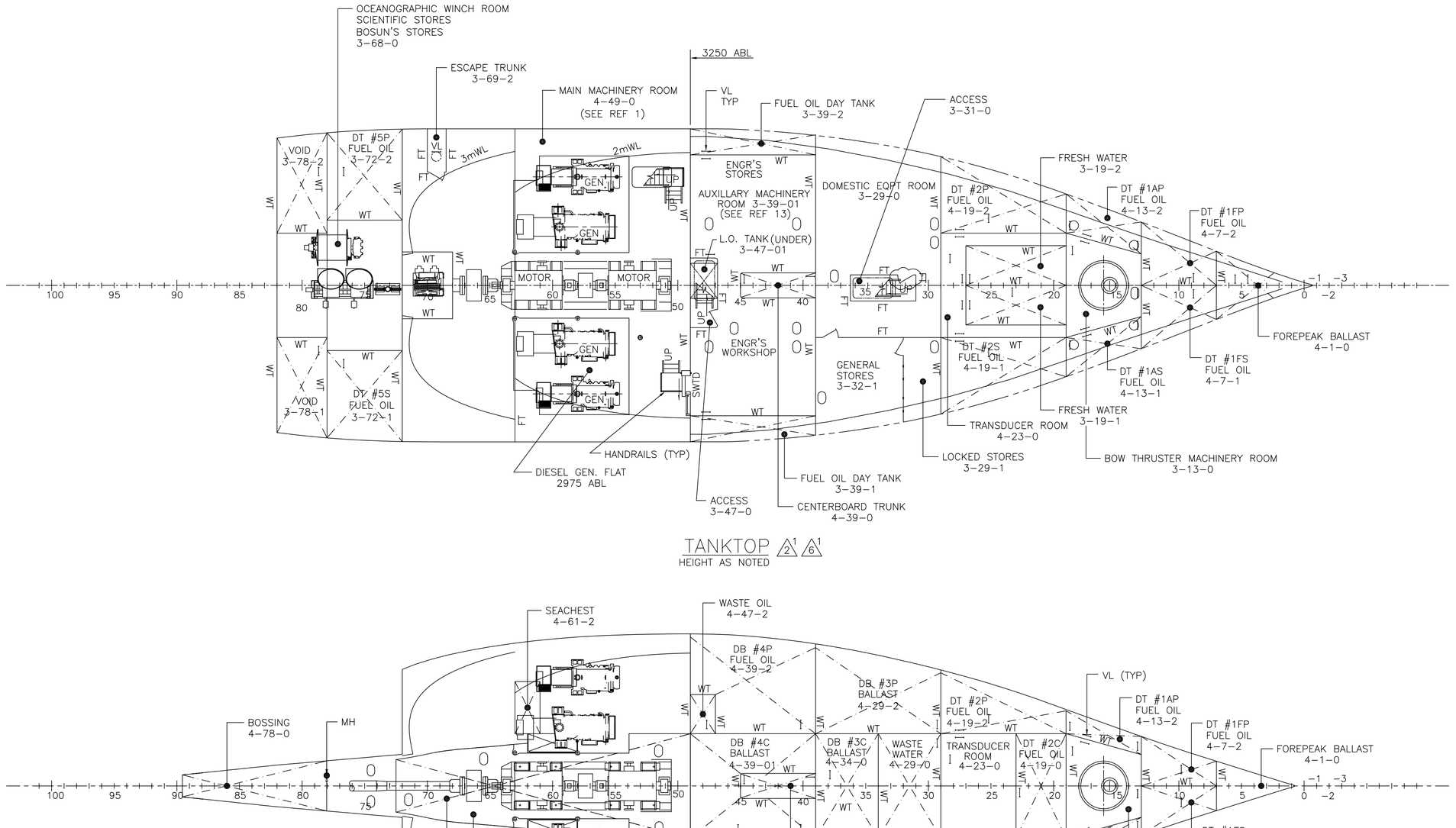
TITLE
GENERAL ARRANGEMENTS

JOB NO.	ITEM	DELIVERABLE	SHEET	REV
M282	085	FA02	001	06

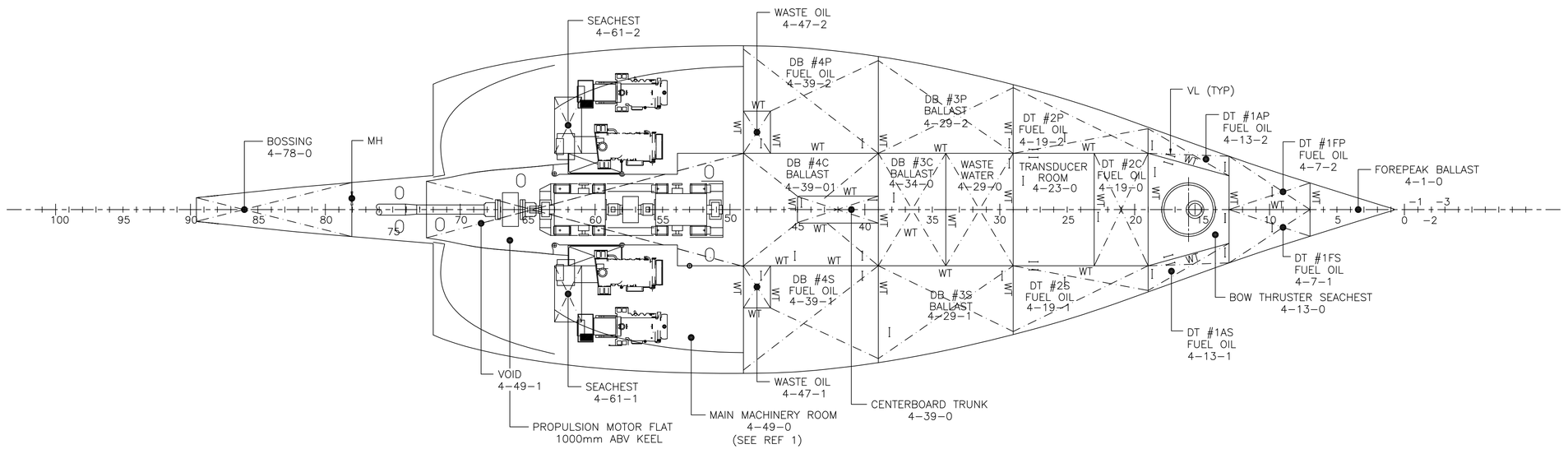
FILE R:\M282\FUNCTIONAL DESIGN\ISSUED\HULLDWGS

SHEET 1 OF 5

PLOT: 1=1



TANKTOP (2)(1) (6)(1)
HEIGHT AS NOTED

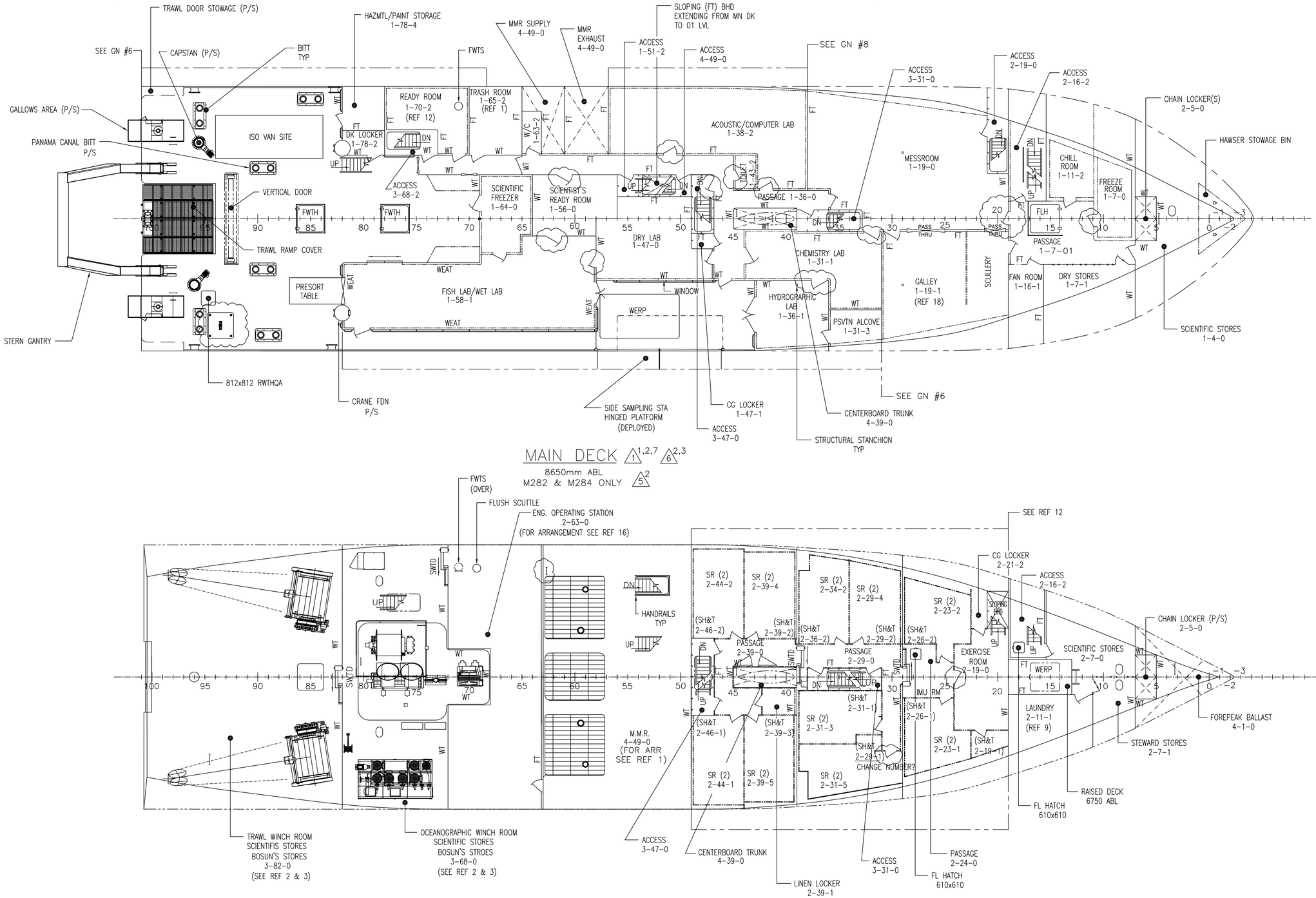


INNERBOTTOM

HULL NO	CAGE CODE	SIZE	JOB NO.	ITEM	DELIVERABLE	SHEET	REV
1953	3B213	D	M282	085	FA02	002	06
ESTIMATE NO	SCALE		FILE R:\M282\FUNCTIONAL DESIGN\ISSUED\HULLDWGS			SHEET 2 OF 5	
00-104	1:100						

DWG NO. M282-085-FA02 SH 2

PLOT: 1=100



MAIN DECK (1)(1,2,7) (6)(2,3)

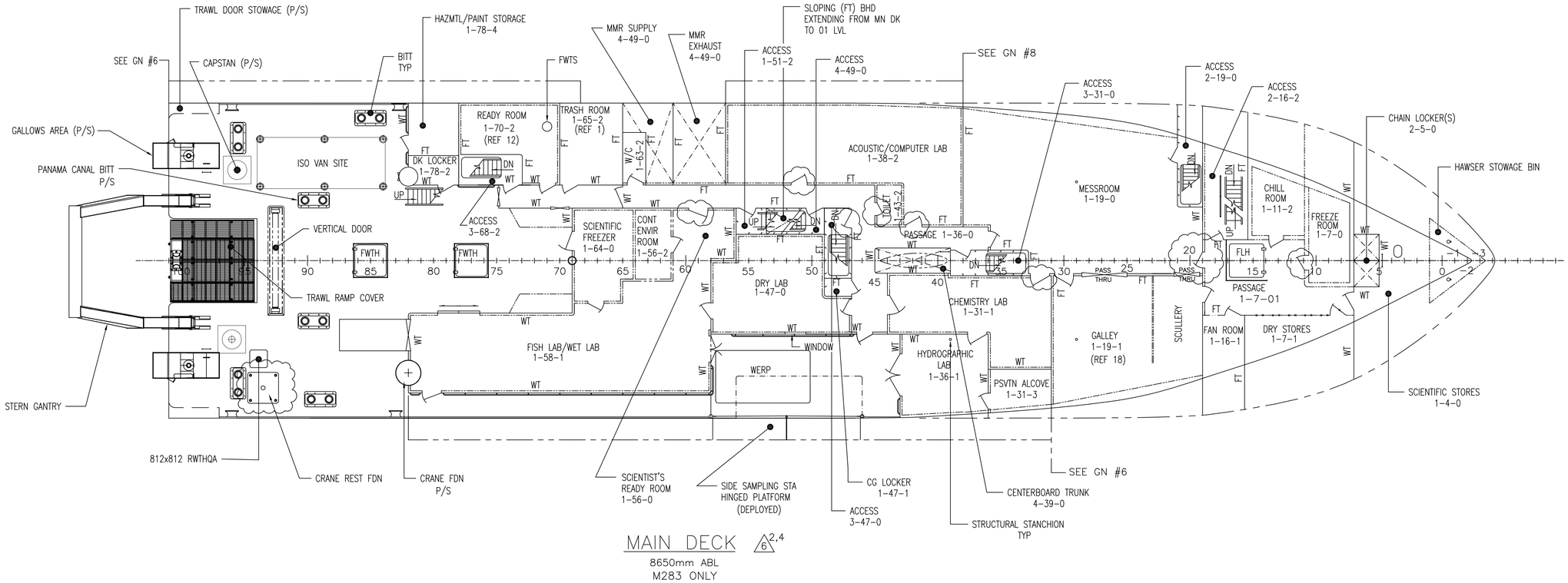
8650mm ABL
M282 & M284 ONLY (5)(2)

2ND DECK (1)(1) (6)(3)

6000mm ABL

DWG NO. M282-085-FA02 SH 3

HULL NO	CAGE CODE	SIZE	JOB NO.	ITEM	DELIVERABLE	SHEET	REV
1953	3B213	D	M282	085	FA02	003	06
ESTIMATE NO	SCALE		FILE R:\M282\FUNCTIONAL DESIGN\ISSUED\HULLDWG			SHEET 3 OF 5	
00-104	1:100						PLOT: 1:1



MAIN DECK △6 2,4

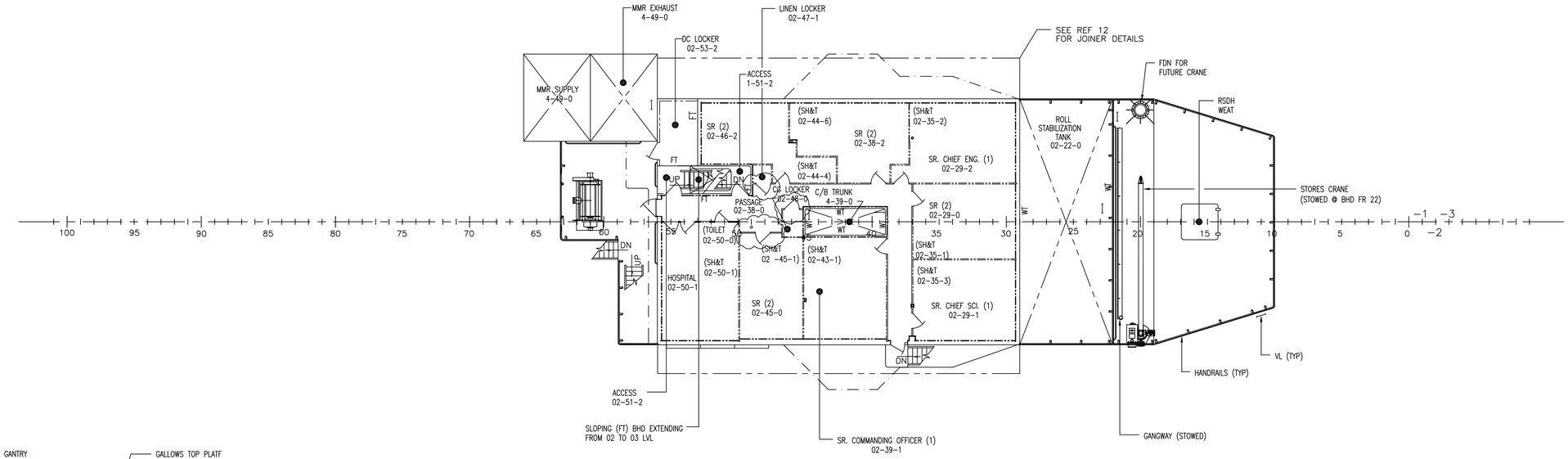
8650mm ABL
M283 ONLY

△5 3

HULL NO	CAGE CODE	SIZE	JOB NO.	ITEM	DELIVERABLE	SHEET	REV
1953	3B213	D	M282	085	FA02	003A	06
ESTIMATE NO	SCALE		FILE R:\M282\FUNCTIONAL DESIGN\ISSUED\HULLDWG			SHEET 3A OF	
00-104	1:100						

PLOT: 1:1

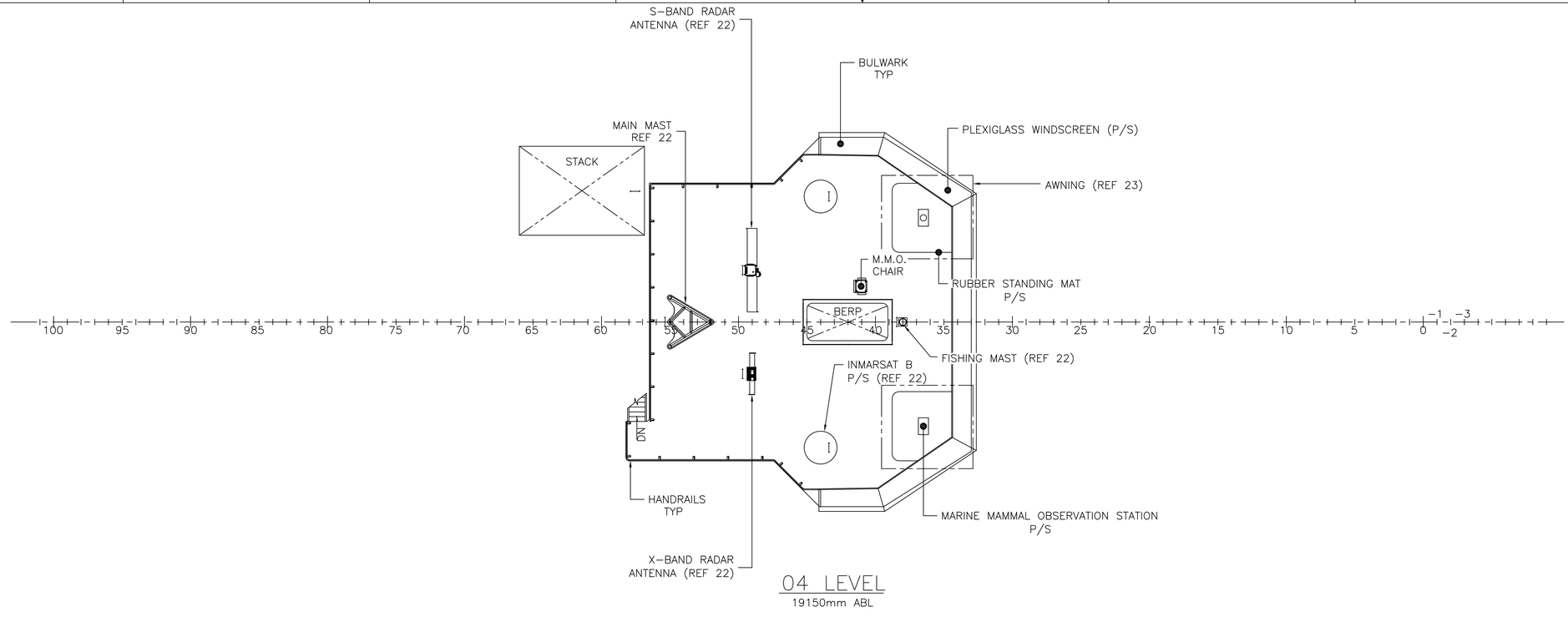
DWG NO M283-085-FA02 SH 3



HULL NO	CAGE CODE	SIZE	JOB NO.	ITEM	DELIVERABLE	SHEET	REV
1953	3B213	D	M282	085	FA02	004	06
ESTIMATE NO	SCALE		FILE R:\M282\FUNCTIONAL DESIGN\ISSUED\HULLDWG			SHEET 4 OF 5	
00-104	1:100						

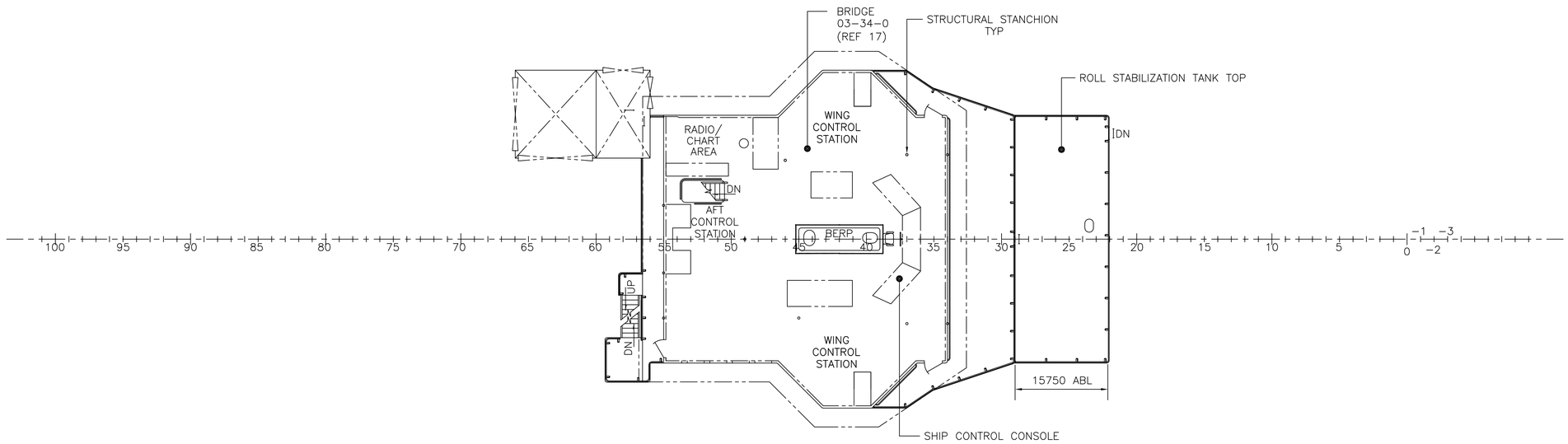
DWG NO. M282-085-FA02 SH 4

PLOT: 1:1


S-BAND RADAR ANTENNA (REF 22)
BULWARK TYP
MAIN MAST REF 22
STACK
PLEXIGLASS WINDSCREEN (P/S)
AWNING (REF 23)
M.M.O. CHAIR
RUBBER STANDING MAT P/S
BERP
FISHING MAST (REF 22)
INMARSAT B P/S (REF 22)
HANDRAILS TYP
MARINE MAMMAL OBSERVATION STATION P/S
X-BAND RADAR ANTENNA (REF 22)
100 95 90 85 80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 -1 -2 -3

04 LEVEL

19150mm ABL


BRIDGE 03-34-0 (REF 17)
STRUCTURAL STANCHION TYP
ROLL STABILIZATION TANK TOP
WING CONTROL STATION
RADIO/ CHART AREA
AFT CONTROL STATION
BERP
WING CONTROL STATION
15750 ABL
SHIP CONTROL CONSOLE
100 95 90 85 80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 -1 -2 -3

03 LEVEL 2/9

16650mm ABL UNO

HULL NO	CAGE CODE	SIZE	JOB NO.	ITEM	DELIVERABLE	SHEET	REV
1953	3B213	D	M282	085	FA02	005	03
ESTIMATE NO	SCALE						
00-104	1:100		FILE R:\M282\FUNCTIONAL DESIGN\ISSUED\HULLDWG			SHEET 5 OF 5	

PLOT: 1:1

DWG NO. M282-085-FA02 SH5